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ANNUAL REPORT

OF

BRIGADIER GENERAL H. A. GREENE

UNITED STATES ARMY

COMMANDANT

THE ARMY SERVICE SCHOOLS

FORT LEAVENWORTH, KANSAS

1915

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August 31, 1915.

From: Commandant, Army Service Schools.
To: The Adjutant General, U. S. Army.
Subject: Annual Report for the year ending August
31, 1915.

In obedience to the requirements of paragraph 17, Special Orders No. 157, War Department, July 7, 1914, I reported for duty at and assumed command of these schools on August 20, 1914. During the year, the Army Service Schools have comprised the following:

The Army School of the Line,
The Army Staff College,
The Army Signal School,
The Army Field Engineer School,
The Field Service School for Medical Officers,
(including Correspondence Course),
The Special Class for Field Officers.

The last four are special technical schools, the directors and instructors of which also give instruction in their respective subjects in the general courses of the first two schools.

THE ARMY SCHOOL OF THE LINE

The Army School of the Line this year contained 30 members who were graduated on June 19th.

The work of the class was very satisfactory. The Honor and Distinguished graduates (15 in number) were recommended for detail to the next class of The Army Staff College.

Major Lezama of the Cuban Army entered with this class but was withdrawn by his government

and ordered home to assist in the organization of a Cadet School.

It is regretted that at least 45 student officers are not sent each year to the School of the Line; this would be in the interests of efficiency of the Army and in the interests of economy in taking greater advantage of the fixed cost of the schools. In my opinion the School of the Line is the most important and useful of this group of schools and advantage should be taken of it to the maximum of its capacity which is limited by the number of quarters available for officers.

THE ARMY STAFF COLLEGE

The class of this college this year consisted of 22 officers (inclusive of Lieutenant Villalta of the Cuban Army). Captain Tabio of the Cuban Army entered with this class but was withdrawn by his government and ordered home to assist in the organization of a Cadet School. The strength of the class of the Staff College is determined by the Academic Board, being from 40% to 50% of the graduating class of the School of the Line and such graduates of the Army Field Engineer School as make a percentage in Military Art of the former school equal to or better than the lowest man of that school recommended for the Staff College course.

The next year's class will have in addition to the number thus determined several men who were obliged to leave the class in 1912 by operation of the detached service law.

The work of the last year's class was very creditable.

THE ARMY SIGNAL SCHOOL

The class of this school consisted of but 8 officers—all of the infantry—who completed a useful course

very creditably and are qualified to render efficient service with signal corps organizations. The incoming class comprises 11 officers and is believed to be about the maximum number which can be handled with present accommodations.

THE ARMY FIELD ENGINEER SCHOOL

The class of this school consisted of but 2 officers. Both these officers attained such a standing in their school and in the Department of Military Art in the School of the Line as to entitle them to a recommendation to the next Staff Class which they accordingly received. One of them attained Honor rank and the other, Distinguished.

The incoming class of this school has 4 members.

THE FIELD SERVICE SCHOOL FOR MEDICAL OFFICERS

No medical officers of the regular service were in attendance at this school during the year; six were ordered but the orders were subsequently revoked. The alleged reason being insufficiency of mileage funds.

The class was composed of 9 medical officers of the Organized Militia representing the states of Maine, Connecticut, New York, North Carolina, Georgia, Oklahoma, Kansas and Wyoming.

Experience of former years has shown that better results are obtained when the class of this school contains both regular and militia officers, as the former render much assistance to the latter by working with them; but even under the most favorable circumstances it is very doubtful, if, in the general case, the medical officers of the National Guard derive enough benefit from this course to materially improve the efficiency of themselves or the organizations they represent. The reason is

lack of fundamental military study or experience. Of course, there are exceptional men who, by individual study or experience, have acquired a suitable foundation. To such men and to the regular medical officers, the course at this school is very valuable in promoting their efficiency. The zeal displayed by the members of the last class is highly commendable.

Thirty-seven (37) regular medical officers and 2 officers of the Medical Reserve Corps were detailed to take the Correspondence Course last year, of this number 37 completed it.

SPECIAL CLASS FOR FIELD OFFICERS

This class consisted of the following-named officers, alphabetically arranged:

Anderson, E. D., Major, 6th Cavalry,
Bennett, W. C., Major, Adjutant General,
Chandler, G. F., Major, 10th Infantry, N. Y. National
Guard,
Chase, Wilson, Major, 21st Infantry,
Fenton, C. W., Major, 2d Cavalry,
Grierson, C. H., Colonel, Cavalry,
Hardaway, B. F., Major, 17th Infantry,
Howard, John, Major, 22d Infantry,
Johnston, W. T., Major, 15th Cavalry,
Kobbe, F. W., Major, 18th Infantry,
Landers, G. F., Colonel, Coast Artillery Corps,
Lewis, E. A., Major, 6th Infantry,
Morrow, J. J., Major, Corps of Engineers,
Stokes, M. B., Major, 14th Infantry,
Taylor, W. A., Major, 2d Infantry, N. Y. National
Guard,
Truitt, C. M., Colonel, 22d Infantry,
White, G. P., Major, 9th Cavalry,
Winn, F. L., Lieutenant Colonel, 16th Infantry.

All completed the course with more or less credit and several have since been detailed to the Army War College. This school is believed to be a valuable

agency towards standardizing methods of training in the Army.

Were it not for the fact that the larger portion of the troops of the garrison of Fort Leavenworth are absent on detached service on the border, thereby vacating a number of officers' quarters which, through the courtesy of the Post Commander, are available for temporary occupancy by officers of these Special Schools, their continuance would be impossible.

The following changes in the personnel of the officials of these Schools have taken place during the year:

Relieved:

Major W. N. Bispham, Medical Corps,
Major G. R. Spalding, Corps of Engineers,
Captain E. E. Haskell, Infantry,
Captain P. T. Hayne, jr., 12th Cavalry,
Captain E. G. Abbott, Signal Corps,
Captain J. B. Douglas, Signal Corps.

Detailed:

Major M. A. W. Shockley, Medical Corps,
Major Blanton Winship, J. A. General's Dept.,
Captain A. W. Bjornstad, 16th Infantry,
Captain L. M. Adams, Corps of Engineers,
Captain J. B. Christian, Signal Corps,
Captain C. DeF. Chandler, Signal Corps.

Lieutenant Colonel John Biddle Porter, Judge Advocate's Department, Senior Instructor in Law, died in line of duty after the finish of the school year. Colonel Porter was a very efficient instructor and an officer who contributed largely to the successful operation of these Schools during his association with them.

The operations of the detached service and foreign service laws makes it difficult at times to secure suitable instructors and to retain them for a

sufficient length of time to get the maximum of benefit from their services. An instructor usually spends the greater part of his first year in learning his duties, the second year he begins to be useful and attains the maximum of utility in his third and fourth years. If possible no instructor should be relieved from such duty until he has completed a full tour.

During the year one member of the Line Class and one member of the Staff Class had to be relieved from duty at the Schools and sent for a short time for duty with troops to comply with the requirements of the detached service law. They were then able to return and complete their courses at the Schools. These interruptions were unfortunate but unavoidable and serve to emphasize that no officer should be detailed to the School of the Line who has not, at least, a prospect of two years' detached service available, reckoned from July 1st of the year he is to enter the School.

SUPPLY SECTION OF THE STAFF CLASS

In his report for 1912, Lieutenant Colonel (now Colonel) J. F. Morrison, then Acting Commandant of these Schools, recommended the establishment of a supply class or school. This matter was taken up and considered by the Academic Board of the Schools early in the year and a committee appointed to arrange details therefor, inclusive of a program, for a tentative course. Before final action on the matter was accomplished, instructions were received from the War Department to establish such a class. The resulting action of the Academic Board making provision for such a course along the lines of Colonel Morrison's recommendation was submitted to the War Department, together with a draft of a proposed

order to carry the same into effect. The approval of the War Department was duly received, together with the necessary order (General Orders No. 29, War Department, May 19, 1915).

The supply section will begin its work at the opening of the Schools on September 1st with a membership of eight officers. It will pursue the general Staff College course with the exception of languages; in lieu thereof it will follow a special supply course which has been carefully prepared to cover such subjects as are peculiar to the duties of a supply officer; of course, the schedule as arranged is tentative and probably will be materially changed in detail from time to time, but it is expected that a very profitable scheme of instruction will be evolved and that from this small beginning there will event-develop a special Staff Supply School.

In anticipation of such development a request has been made for additional officers' quarters at this place to accommodate 28 more officers. It is hoped this request may receive favorable consideration.

As at present planned, the services of the instructors already on duty at the Schools will be utilized for this supply section with possibly one additional specialist in supply work. It is also contemplated to request the Quartermaster General to designate from time to time experts from his corps for lectures, demonstrations or other temporary services.

LIBRARY

The library of the Schools has been very efficiently managed by Lieutenant Colonel E. B. Fuller, U. S. A. (retired), during the year. In this work he has been ably assisted by Master Signal Electrician Harry Bell, who has recently been retired from active service; but fortunately for the Schools is con-

tinued in their service as a civil service translator.

A new building to house the library is now under construction. Such a building has long been needed and its occupation will not only suitably house our valuable collection of professional books, pamphlets and maps, but the rooms at present used for the library will relieve congestion in other departments of the Schools.

The new building, by authority of the War Department, has been named "Wagner Hall," in honor of the late Colonel Arthur L. Wagner, U. S. Army, who was active in the development of these Schools and for many years identified with the development of theoretical study in the Army.

MAILING LIST

One of the important side agencies of these Schools in promoting efficiency is the mailing list which now contains nearly 4,000 names of officers (Regular and National Guard), college and university students and others interested in military studies, to whom are furnished problems, maps and similar material at a very small expense—practically at cost. The benefit in awakened interest and in promotion of military knowledge and efficiency is far reaching.

DISBURSING OFFICER

The Secretary of these Schools has conducted the varied duties of his office in an entirely satisfactory manner. It is a difficult position to fill; but Captain Ferguson seems peculiarly well fitted therefor. The non-commissioned officers of the School Detachment (white) and the civil service clerks have rendered faithful and valuable service in a satisfactory manner.

THE SIGNAL CORPS

Field Company A, which is attached to these

Schools, has been administered efficiently and is a valuable adjunct.

The other Signal Corps organizations nominally attached to the Schools are of no use to it. They have not been with it during the year and only enable officers to hold quarters which are needed for other purposes. One of these companies (B) comprises the enlisted men sent here for instruction.

The colored Detachment No. 2, under the immediate command of Lieutenant H. E. Mann, has performed its duties satisfactorily.

As Instructor in Equitation, Lieutenant Mann has worked indefatigably and with marked success. Instruction in equitation is compulsory for the School of the Line (except for graduates of the Fort Riley School) and optional for the Staff College. The regular class and the large volunteer classes, made up of Staff College students and instructors in the Schools, worked hard during the winter under Lieutenant Mann's efficient direction with most gratifying results.

All of the officers connected with these Schools have worked hard during the year. The requirements of the several courses are severe and demand long hours of close application. This service has been cheerfully rendered and no tendency on the part of anyone to shirk has been observed. The directors and corps of instructors of the several schools are an unusually efficient body of officers.

The Post and Disciplinary Barrack authorities have coöperated willingly with the School authorities during the year and all official and social relations have been most cordial.

RECOMMENDATIONS

It is recommended that 45 officers be designated each year for instruction in the School of the Line,

and that officers so designated shall have at least two years of detached service due them, reckoned from July 1st of the year they report for duty. If, under the laws regulating detached and foreign service, this number cannot be obtained from captains and junior field officers, the privilege should be extended to senior first lieutenants, say to those who stand above 100 on the lineal list.

It is recommended that no field officer under 43 years of age be detailed to take the Special Field Officers' Course but that he be sent instead to the School of the Line and, further, that all field officers between the ages of 43 and 60 be *required* to take the Special Course, leaving it optional for those over 60.

It is recommended that the general annual allotment of the schools be increased from \$15,000 to \$20,000—this to cover constantly increasing demands due to enlargement of scope of the schools.

It is recommended that frequent changes of instructors be avoided as much as possible; that instructors who have demonstrated their worth be kept for a full tour of four years. That only the provisions of the law regulating detached service be considered in this connection.

It is recommended that graduates of the Army Field Engineer School whose standing in the course of Military Art is equal to or better than the lowest student of the Army School of the Line, who is recommended to take the Staff Class course and who have received a percentage of 90 or better in engineering, be carried as Distinguished Graduates of the Army Field Engineering School and that this rule be made retroactive as has been done in the case of Honor Graduates of that school.

It is recommended that favorable consideration be given the request which has been made for additional quarters to accommodate an increased num-

ber of officers for instruction in Staff Supply and for the student officers of the Special Schools.

It is recommended that the request made for another school building to cost about \$75,000 be favorably considered. This building to be primarily for the better equipment of the Signal School but utilizable for other departments and schools.

It is recommended that the special allotment for the Signal Schools be increased to \$5,000 for installation and maintenance of a separate laboratory for instruction of enlisted men.

It is recommended that no medical officers of the National Guard be sent to the Field Service School for Medical Officers unless they have completed year "D" of the course of instruction inaugurated by the Bureau of Militia Affairs, or its equivalent, and that the number of officers of the regular service be increased correspondingly, the aggregate number of Regular and National Guard officers not to exceed 15. This same condition as to preparation should be applied to designation of National Guard medical officers for the Correspondence Course.

Attention is respectfully invited to a memorandum furnished the Secretary of War on the subject of increasing the capacity of these Schools to provide for an increased number of students of the School of the Line, in anticipation of future contingencies.

Attention is invited to the Reports of Directors, Senior Instructor, and the Secretary herewith for interesting details of the work of the Schools. No report was made of the Law Department on account of the death of the Senior Instructor, but the scheduled work of that department was completed very satisfactorily.

H. A. GREENE,
Brigadier General, U. S. Army.

July 1st, 1915.

From: The Assistant Commandant.
To: The Commandant.
Subject: Annual Report.

1. It is a satisfaction to report that the Army Service Schools have completed a successful year unbroken by such exigencies as the detached service law and the Mexican situation which interrupted the work of the two preceding years.

THE ARMY SCHOOL OF THE LINE

2. The following officers completed the course and were graduated June 19th:

Honor Graduates

Captain L. M. Nuttman, 4th Infantry,
Major O. W. B. Farr, Field Artillery,
Captain C. C. Winnia, 14th Cavalry,
Captain C. H. Lanza, 5th Field Artillery,
Captain Robert J. Maxey, 18th Infantry.

Distinguished Graduates

Captain J. W. Beacham, jr., 29th Infantry,
Captain H. LaT. Cavanaugh, 10th Cavalry,
Captain H. C. Clement, jr., 29th Infantry,
Captain L. C. Crawford, Coast Artillery Corps,
Captain V. D. Dixon, 4th Cavalry,
Captain R. H. Hearn, 9th Infantry,
Captain G. A. Herbst, 14th Infantry,
Captain H. B. Myers, 6th Cavalry,
Captain Herschel Tupes, 1st Infantry,
Captain G. P. Tyner, 15th Cavalry.

Graduates

Captain O. W. Bell, 14th Cavalry,

Captain W. F. Creary, 27th Infantry,
Captain H. G. Davids, 9th Infantry,
Captain H. B. Farrar, 3d Field Artillery,
Captain A. W. Foreman, 20th Infantry,
Captain D. H. Gienty, 12th Cavalry,
Captain J. M. Little, 28th Infantry,
Captain S. P. Lyon, 25th Infantry,
Captain G. H. McMaster, 3d Infantry,
Captain G. T. Perkins, Coast Artillery Corps,
Captain G. B. Pritchard, jr., 10th Cavalry,
Captain A. T. Smith, 12th Infantry,
Major L. S. Sorley, 12th Infantry,
Captain Pegram Whitworth, 10th Infantry,
Major E. S. Wright, 1st Cavalry.

Major M. J. Lezama of the Cuban Army started in with this class but was called home to assist in re-organizing the Cuban Army.

DEPARTMENT OF MILITARY ART

3. In addition to my other duties I continued to hold the position of Senior Instructor in this department, having as my assistants the following-named officers:

Major N. F. McClure, 5th Cavalry,
Captain E. D. Scott, 6th Field Artillery,
Captain LeRoy Eltinge, 15th Cavalry,
Captain H. B. Fiske, 28th Infantry,
Captain W. K. Naylor, 9th Infantry,
Captain Willey Howell, 4th Infantry,
Captain Stuart Heintzelman, 6th Cavalry,
Captain A. L. Conger, 26th Infantry,
Captain H. A. Drum, 23d Infantry,
Captain P. T. Hayne, jr., 12th Cavalry,
Captain E. E. Haskell, Infantry,
Captain C. W. Weeks, 28th Infantry.

Major McClure was ordered to Arkansas, Nov. 3, 1914, to take charge of the strike situation and returned Feb. 2, 1915.

By reason of the detached service law, the following instructors were unable to report in time for

the opening of the school year but reported on the dates set after their respective names:

Captain Drum, Oct. 3, 1914;
Captain Heintzelman, Dec. 18, 1914;
Captain Naylor, Nov. 8, 1914;
Captain Fiske, Jan. 14, 1915.

It was necessary to arrange the course accordingly, especially in the case of Captain Naylor who had spent much time in preparation for Conduct of War and American Campaigns.

While the desired sequence of subjects was thus somewhat disturbed, the work of the department was carried out most successfully.

4. I desire to commend my assistants for the able and efficient manner in which they have performed their duties; for their cordial support and for the zeal and enthusiasm always displayed in their work.

5. The coming year is full of promise for, as it now appears, all but two of the above staff instructors will be retained. Unfortunately the detached service law has necessitated the relief of Captains Hayne and Haskell.

AMERICAN TEXT BOOKS

6. There has been a very general demand for American text books to replace those of foreign origin. This is not an easy matter and the change should be a gradual one. Some progress has been made in this direction, selected reinforced brigade and division problems having been introduced into the course of applied tactics. Unless the problem has been especially written with this object in view it does not well answer the purpose, but those which were so prepared were quite satisfactory. It is hoped that we may gradually try out problems in this way

until we can use them largely to the exclusion of foreign ones.

Captains Conger and Eltinge also prepared a pamphlet on outposts which was used in this course and which met with much favorable comment.

INFREQUENT CHANGES OF INSTRUCTORS IMPORTANT

In this connection it is well to call attention to the desirability of retaining instructors for a full four years' tour.

In their third year they may be able to write studies of the above nature, try them out the fourth year and get them in shape for permanent publication.

The work of an instructor in this department is most exacting. To prepare an original problem, write an approved solution and mark the solutions of forty or more students with the required care, making thereon the criticisms called for is a matter of more than two weeks' time.

As a matter of fact instructors are acquiring perhaps as much instruction out of the course as students, thus making them far more efficient in this line of work when they return to their regiments.

Because of the character of the work a comparatively large number of instructors is required. It would be desirable to increase this number so that time might be found to produce all the books and studies which are demanded and which seem to be expected from these schools.

7. No radical changes in the course of study and method of instruction have been made during the year.

As a result of experience minor changes are constantly going on. It is believed these are generally in the right direction and mark the continued progress of the Schools.

THE ARMY STAFF COLLEGE

8. The following-named officers constituted the Staff Class and were graduated June 19th:

Captain L. M. Adams, Corps of Engineers,
1st Lieutenant E. Addis, 10th Cavalry,
Captain F. E. Bamford, 28th Infantry,
1st Lieutenant P. H. Clark, 23d Infantry,
Captain H. A. Eaton, 23d Infantry,
Captain E. E. Fuller, 23d Infantry,
Captain W. S. Grant, 3d Cavalry,
Captain A. J. Greer, 16th Infantry,
1st Lieutenant F. D. Griffith, jr., 6th Cavalry,
Captain J. S. Herron, 2d Cavalry,
Captain R. P. Howell, Corps of Engineers,
Captain J. R. Kelly, 26th Infantry,
Captain H. L. Landers, Coast Artillery Corps,
1st Lieutenant J. P. McAdams, 11th Infantry,
Major J. K. Miller, 9th Infantry,
1st Lieutenant E. J. Pike, 15th Cavalry,
Captain O. P. Robinson, 19th Infantry,
Captain W. W. Taylor, jr., 19th Infantry,
Major LaR. S. Upton, 10th Infantry,
1st Lieutenant V. G. Villalta, Cuban Army,
Captain B. R. Wade, 5th Infantry,
Captain J. P. Wade, 2d Cavalry.

In many respects the year just closed has been a very satisfactory one. Much of the work is of such a character that an unlimited amount of time could well be spent upon it. Papers can rarely be completed to the satisfaction of the student. Consequently we hear much about the lack of time. This condition has been ameliorated, however, by having much of the source material for historical studies translated and put in book form. The work involved in this may be appreciated when it is known that the source material of the battle of St. Privat makes a volume of about 500 pages. The material of this was selected by Captain Conger, was duly translated and issued in book form from the School press.

The historical work in the Staff Class is consid-

ered of very great value not only for general staff officers but also for our instructors that they may have reliable historical data upon which to base their conclusions. While the number of conferences in historical research as such will be reduced in the schedule for the coming year, those in strategy and grand tactics based upon history will be accordingly increased.

SPECIAL CLASS FOR FIELD OFFICERS

9. The following officers constituted this class:

Colonel C. M. Truitt, 22d Infantry,
Colonel C. H. Grierson, Cavalry,
Colonel G. F. Landers, Coast Artillery Corps,
Lieutenant Colonel F. L. Winn, 16th Infantry,
Major J. J. Morrow, Corps of Engineers,
Major E. A. Lewis, 6th Infantry,
Major W. C. Bennett, Adjutant General,
Major Wilson Chase, 21st Infantry,
Major B. F. Hardaway, 17th Infantry,
Major John Howard, 22d Infantry,
Major C. W. Fenton, 2d Cavalry,
Major F. W. Kobbe, 18th Infantry,
Major E. D. Anderson, 6th Cavalry,
Major G. P. White, 9th Cavalry,
Major W. T. Johnston, 15th Cavalry,
Major M. B. Stokes, 10th Infantry,
Major W. A. Taylor, N. Y. National Guard,
Major J. F. Chandler, N. Y. National Guard.

The twelve weeks' course, from January 4th to March 26th, embracing 19 map problems, 15 tactical rides and terrain exercises, 5 exercises in troop leading, 75 conferences and 41 lectures, was entered upon with enthusiasm by the class and carried to a successful finish. While this was a very strenuous period for the students as well as instructors, very general satisfaction as to the course was expressed, coupled with regret that the time could not be extended to include many other features which seemed to them desirable.

On the whole, I believe this class should be continued for several years as advantageous to all concerned. It puts the senior officers of the line in close touch with these schools and doubtless will lead to their taking a continued interest in their welfare. Field officers under the age of 43 should enter the School of the Line rather than the Special Class and I so recommend. I also recommend that no officer over sixty years of age be sent here except upon his own request.

FIELD SCHOOL FOR MEDICAL OFFICERS

10. The Department of Military Art was called upon to conduct many exercises with this class during April and May. This work embraced conferences on Field Service Regulations, lectures on the employment of infantry and cavalry; map maneuvers; tactical walks and rides, etc.

SUPPLY SCHOOL

11. A start has been made toward the organization of a supply school as recommended in Colonel Morrison's report of 1912.

The staff class has been divided into two sections, one of which, known as the Supply Section, will take supply work instead of languages. A tentative schedule has been prepared for the coming year and there is every reason to believe that the evolution into a full-fledged Supply School will be rapid. Additional quarters are essential before our hopes can be fully realized in this direction.

THE MAILING LIST

12. It seems fitting to call attention to the great work these schools are doing outside their immediate environment.

There is now a mailing list of some 4,000 members. To each of these members are sent during the year about 700 pages of printed matter including problems, lectures, and papers thought to be of interest to military men. This literature enables those who so desire to keep in close touch with the Service Schools and is of especial value to those preparing to enter the School of the Line.

SCHEDULE FOR 1915-16

13. Schedules for the coming year have already been prepared and the work for the first four months assigned to instructors so that due preparation may be made previous to the opening of the school year.

The effort to coördinate the work of instructors has been continued throughout the year with good results.

W. A. HOLBROOK,
Lieut.-Colonel, Cavalry.

REPORT OF SECRETARY AND DISBURSING OFFICER

July 13, 1915.

The following report is submitted of the operations of this office for the year 1914-15:

1. During the past fiscal year the sum of \$15,000.00 was allotted for the support of the Schools. This money has been expended as follows:

Purchase of furniture, stationery, apparatus and supplies for office, library, department of engineering, drafting room and map making department.....	\$7,748.00
Purchase of books and periodicals.....	1,089.85
Purchase of apparatus and supplies for Army Signal School.....	107.23
Printing and binding.....	5,497.52
Rental of telephones.....	516.20
Transportation of persons.....	41.20
	<hr/>
	\$15,000.00

For several years past the annual allotment has been \$15,000.00, but with the growth and development of the Schools comes a consequent increase in necessary expenses, and the amount annually allotted should be increased.

2. The civil service personnel on duty at the Schools has rendered very satisfactory service although handicapped by the absence of three clerks at Headquarters, Second Division, Texas City, Texas.

3. Attention is invited to the work of the Army Service Schools Detachment, white, in connection with the operations of the Schools. This detachment does the printing, bookbinding, drafting, photographic, lithographic, and a large part of the clerical work pertaining to the Schools and the work in all departments during the past year has been most

satisfactory. All departments have been worked to the limit throughout the year. Information has been received that a small increase in strength will be granted this detachment, a very much needed addition.

4. The mailing list has gained nearly 1,100 members during the past year, now having a grand total of 3,652 officers of the Regular Army and National Guard.

A. M. FERGUSON,
Captain, 14th Infantry,
Secretary.

REPORT OF LIBRARIAN

June 30, 1915.

From: The Librarian, Army Service Schools.
 To: The Secretary, Army Service Schools.
 Subject: Annual Report.

1. The following table shows the number of books on hand, purchased, bound, donated to library, etc., during the year:

	<i>Vols.</i>
On hand last report, April 30, 1914.....	27,085
ACCESSIONS:	
Public Documents & School Publications....	599
From War College Division, G. S.....	138
From Bindery (service periodicals).....	291
By Purchase.....	432
By Donation.....	175
Total.....	28,720
Dropped (obsolete manuals and publications)	384
On hand, June 30, 1915.....	28,336

LIST OF DONATORS:

Captain L. M. Adams.....	2 vols.
Colonel W. P. Burnham.....	128 "
Cavalry Journal.....	9 "
Major W. W. Dougherty.....	1 "
Captain L. C. Duncan.....	1 "
Captain C. W. Exton.....	1 "
Captain A. P. S. Hyde.....	1 "
Colonel J. P. Nicholson.....	10 "
Captain J. K. Parsons.....	9 "
Colonel J. B. Porter.....	1 "
Captain C. D. Roberts.....	4 "
Lieutenant M. E. Scott.....	2 "
Colonel G. O. Squier.....	1 "
Mr. Slason Thompson.....	2 "
Major M. L. Walker.....	2 "
Total.....	175 vols.

Books loaned out during year..... 2,588

2. The number of books loaned out during the year is about the same as during the preceding year, although this school year was longer by nearly two months. However, as has been stated before, the number of books loaned out is by no means any indication of the use made of the library. Very few of the student officers take books from the library but use them at their tables in the study rooms connected therewith.

3. The contract for the new library building was let early in March of this year, and work thereon was commenced about a month later. The progress of its construction has been satisfactory and it is hoped that the building will be completed early in the coming fall. This building will afford the much needed room for the use of the Staff Class in their research work, but more particularly will house our valuable collection of books in a fire-proof building.

4. Master Signal Electrician Harry Bell has performed his duties, as heretofore, in an extremely satisfactory manner, not only as assistant librarian, but also as a translator, of which work he has done an immense amount during the year. It is fortunate that his services are to be retained by the Schools on his retirement from active service in the near future.

5. Battalion Sergeant Major James B. Rousseau has familiarized himself with the work of the library to the extent that he has become a very valuable assistant.

EZRA B. FULLER,
Lieut-Colonel, U. S. Army, retired.

THE ARMY FIELD ENGINEER SCHOOL

June 30, 1915.

1. The purpose of the Army Field Engineer School, as set forth in paragraph 47, General Orders 128, War Department, 1911, is two-fold:

(a) The instruction of officers of the Corps of Engineers, and of engineer officers of the Organized Militia, in their military duties.

(b) To furnish such instruction in Military Engineering as the schedules of the other Schools comprised in The Army Service Schools may call for.

2. I reported for duty at the Army Service Schools on August 18, 1914, relieving Major M. L. Walker, Corps of Engineers, as Director, Army Field Engineer School.

In addition to the undersigned, the following officers have been on duty as instructors in this School for the past term:

Major George R. Spalding, Corps of Engineers,
Captain Max C. Tyler, Corps of Engineers.

3. The Course of the Army Field Engineer School was successfully pursued by two officers of the Corps of Engineers, Major William A. Mitchell and Captain Ralph T. Ward. The recommendations of previous years that the number of officers of the Corps of Engineers attending this school be increased have resulted in the designation of four officers to take the course next year.

4. Under the provisions of paragraph 34-C, G. O. 128, War Department, 1911, there may be detailed not to exceed two graduates of the Army Field Engineer School, who may so desire to receive instruction in the Army Staff College. In case more than

two of next year's graduates of the Army Field Engineer School qualify in other respects for the Staff Class course, question may arise as to the desirability of departing from the existing order, or of securing a modification of the order in this respect.

5. Upon the recommendation of the head of this department last year and with the approval of the Academic Board, the grade of Honor Graduate was established in the Field Engineer School. It is recommended that those graduates of this school whose standing in the course of Military Art is equal to or better than that of the lowest student of the Army School of the Line of that year who is recommended to take the Staff Class course and who have obtained a percentage of 90% or better in Engineering, be carried as Distinguished Graduates of the Army Field Engineer School, this rule to be made retroactive as was done in the case of the Honor Graduates.

6. The Course in Military Engineering for the Army School of the Line comprises 110 half-days devoted to military sketching and surveying, and to field fortifications. The instruction was carried along the lines already developed at this school and no changes of importance were introduced, and none are proposed for the coming year.

7. The Course in Military Engineering for the Staff Class comprised 55 half-days and 10 lectures. The general character of the course was the same as for the two previous School years.

8. A short course in Topography was given the class of the Army Signal School during March and April of 20 half-days. This resulted in the entire class acquiring a satisfactory ability to read maps, and in their development of sufficient skill in military sketching to warrant their being considered qualified for the performance of this duty.

9. For the Special Class for Field Officers, con-

ducted during the year at the Army Service Schools, 7 half-days were devoted to map reading and two lectures on engineering subjects were delivered.

10. Assistance was rendered the Director, Department of Care of Troops in preparing course in map reading for the Correspondence School for Medical Officers and in correcting papers in this subject.

11. In addition to instructional duty, the Director of The Army Field Engineer School is charged with general supervision over the Drafting, Photographic, Lithographic, and Instrument plants of The Army Service Schools. From rather small beginnings, the facilities here have been gradually developed until now practically any reproduction of line work can be successfully accomplished. During the period from July 1, 1914, to June 30, 1915, work as set forth below was accomplished:

DRAFTING ROOM

Tracings of various sizes.....	137
Original drawings.....	65
Blue and black prints (12856 square yards).....	7280

Compiling and adjusting 8 different European War Zone maps.

Tracings of 5 additional quadrangle of Gettysburg-Antietam map on a scale 6" equal 1 mile have been made.

An entire new set of 12 quadrangles of Gettysburg-Antietam map, scale 3" to 1 mile, conforming to the War Department requirements as to contour interval were completed and are now in print.

PHOTOGRAPHIC ROOM

Wet plates, various sizes.....	475
Dry plates " "	88
Lantern slides.....	2000
Prints, up to 8" x 10".....	563
Caméragraph prints.....	200

LITHOGRAPHIC ROOM

War Game sheets, black	31241
War Game sheets, blue.....	31241

Cuts for Army Signal School.....	8141
General work for Army Service Schools, black impressions.....	50852
General work for Army Service Schools, blue impressions.....	13385

INSTRUMENT ROOM

Sketching boards, made for Schools.....	51
“ “ “ “ Book Department.....	58
Alidades made for Schools.....	1500

In addition the entire instrument equipment used in the topographical work of the Schools, and the clocks in the school buildings, have been kept in repair.

S. A. CHENEY,
Major, Corps of Engineers,
Director.

DEPARTMENT OF LANGUAGES
THE ARMY STAFF COLLEGE

June 20, 1915.

1. Object of the course:

This is stated in paragraph 35, IV, General Orders No. 128, War Department, 1911, as follows: "The course of instruction in languages will be elective¹ for the student officer and will comprise instruction in French, German, Spanish, or any other foreign language in which it may be practical to give instruction. * * * The course in each language will comprise instruction in reading, writing and speaking, with a special view of acquiring a conversational knowledge of the language." * * *

2. Allotment of time:

During the year this department had 159 half-days allotted to it, distributed over the entire period of the course. This number of half-days has been increased to 164 for next year's course. The length of conferences was one and one half hours each.

3. Text and reference books:

The War Department, on the recommendation of the Academic Board, has authorized the use of the Spanish Grammar by Olmsted & Gordon (1912) in place of that by Monsanto & Languellier, the change to become effective with the beginning of next year's course. No other changes in the present text and reference books are recommended.

4. The language courses:

(a) The French course:

Instructor: First Lieutenant Aristides Moreno,
28th Infantry.

¹Elective only as regards the particular language, the course being compulsory.

The class consisted of four students, combined into one section. The course was elementary. The results obtained were satisfactory, two of the students obtaining a very good and two a good elementary knowledge. All possess a translating knowledge and two some conversational knowledge. Three of the students possessed some knowledge of French at the beginning of the course, having studied this language at the Military Academy.

(b) The German course:

Instructor: First Lieutenant Henry Hossfeld, 3d Infantry, except during the period from October 27th to December 4th, 1914, when this officer was sick and the Senior Instructor taught the class.

The class consisted of five students, three of whom had a very slight knowledge of the language at the beginning of the course. The students were combined into one section. The course was elementary. The results obtained were satisfactory, one student obtaining a very good, three a good and one a fair knowledge of the language. All possess a translating knowledge and four some conversational knowledge.

(c) The Spanish course:

Instructor: Second Lieutenant Thom Catron, 23d Infantry.

The class consisted of twelve students, organized into two sections, the first numbering seven students, pursuing an advanced course, and the second numbering five students, pursuing an elementary course. The results obtained were, on the whole, satisfactory, particularly as regards the advanced course, four of the students pursuing this course attaining a very good and three a good advanced knowledge of the language. Very satisfactory advance in conversational knowledge was made by this section, the

members of which had a fair elementary knowledge at the beginning of the course. Of the second section, which pursued an elementary course, and the members of which knew practically no Spanish at the beginning of the course, three obtained a good and one a fair elementary knowledge. One member of this section was conspicuously lacking in aptitude, and though laboring faithfully throughout the course, the results were comparatively poor. The students of the first section possess a very good, and those of the second section, with two exceptions, a good translating knowledge.

Captain Allen J. Greer, 16th Infantry, joined the advanced section in Spanish November 30, 1914. This officer had been a member of the Staff Class of 1912-13, and in consequence of the operations of the detached service law, had been relieved from duty at these Schools in December, 1912.

(d) The English Course:

Two officers from the Cuban Army attending the Staff Class, Captain Ernesto J. Tabio and Lieutenant Virgilio G. Villalta, who, at the beginning of the course, elected the course in French, but meeting with considerable difficulty due to the fact that the instruction was carried on in English, changed, early in the course, to the study of English. Captain Tabio was relieved from duty at these schools November 6, 1914. Lieutenant Villalta pursued the course to the end.

5. Instructors:

The very satisfactory results obtained in the past year in the foreign language courses are largely due to the exceptional qualifications of the present assistant instructors who are thoroughly familiar with and who speak the languages in which they instruct. The importance of the possession, by the instructor, of a good speaking knowledge of the

language he teaches cannot be too strongly emphasized. With this should go, hand in hand, a special aptitude for language teaching and a knowledge of the best methods of teaching the Staff College course, which course aims at the acquirement by the students of a conversational knowledge of the language studied and is limited to about 160 conferences, and where the students are, as a rule, of a more or less advanced age for such study.

The operation of the detached service law and the application to the instructor personnel of the foreign service roster result in materially increasing the difficulties of obtaining qualified instructors. Unless the present instructors in French and Spanish are assigned to duty with troops for at least six weeks between July 1st and August 31st, they will be unable to continue on their present detail during the entire period of next year's course. The disadvantages of changing instructors during the course are evident. Further, unless an instructor has had previous experience in language teaching his work in the first year is never quite as good as it is in subsequent years. All of the present instructors in this department have had previous experience in teaching foreign languages at these Schools. I repeat the recommendation made last year, that, following the practice of and in the manner obtaining at the United States Military Academy, West Point, N. Y., instructors be sent to Europe during the summer for the purpose of gaining experience in and perfecting themselves in the languages which they teach.

6. Unfavorable conditions affecting the course in foreign languages in the Staff College.

(a) The limited period of time allotted for the accomplishment of the purposes of the course.

It is evident that approximately 160 conferences,

distributed over a period of about 9½ months, are not sufficient for the acquirement of a conversational knowledge of a foreign language at these Schools, where the work required of the students by other departments of study is equally pressing with that of this department, unless the student already possesses, at the beginning of the course, an elementary knowledge of the language elected by him, or is possessed of unusual talent and aptitude for language study. It has been the experience of this department in the past that only very few of the students entering the Staff College possess a good elementary knowledge of a foreign language, occasional instances as regards the Spanish language excepted. While the majority of the students were found to have previously studied a foreign language, this was usually so long ago that but little has been retained. It is exceedingly rare to find among the Staff Class students any possessing unusual talent and aptitude for language study who are not already acquainted with some foreign language, such persons usually acquiring a foreign language early in life. During the past few years the time formerly allotted to this department has been increased until it now has all that can reasonably be devoted to the purpose of language study, due regard being given to the needs of other departments. Therefore the remedy for the insufficiency of time, under present conditions, for a more complete attainment of the aims of the course must be sought in another direction. Here the requirement of an elementary knowledge of a foreign language by the student officer at the beginning of the course first suggests itself. The results obtained in the past year with the first section in Spanish, which pursued an advanced course, can well be taken as an indication of what might

generally be accomplished with students similarly equipped at the beginning of the course.

As the membership of the Staff Class cannot be determined until the end of the course of the School of the Line, in order that the Staff Class students should possess this elementary knowledge, it would be necessary to make admission to the School of the Line dependent upon the possession of an elementary knowledge of a foreign language. Before such a requirement could be made effective a reasonable time, perhaps two years, would have to be allowed for preparation.

(b) The average advanced age of the members of the Staff Class.

The acquisition of a foreign language, by a course of study, is very largely a memory task. Youth being the period of life when, in the case of the average man, the memory is most retentive and its powers are greatest, the advantages to be derived from a language course are therefore clearly on the side of the young man as compared to one more or less advanced in years. The average age of the Staff Class student places him in the category of the "more or less advanced in years" for language study. To correct this unfavorable condition the only remedy would appear to be the admission of first lieutenants to the School of the Line.

(c) Inaptitude of some students for language study.

Instances of such inaptitude are met with in practically every class of Staff College students. While it is held that every officer, however inapt, can, by conscientious, sustained study, acquire an elementary knowledge of Spanish, it is also held that, for obvious reasons, in the case of students conspicuously inapt, the Staff College year is not the best time, nor a sufficient time, for such study.

Prior to the adoption by the War Department of the amendment of paragraphs 34 and 35, General Orders No. 29, War Department, May 20, 1915, there was, however, no alternative. The amendment referred to extends the application of the elective feature and promises to give the desired relief in this respect.

7. Recommendations:

In view of the generally recognized deficiency in knowledge of foreign languages on the part of the average American army officer, and the equally generally admitted desirability, even necessity, for a possession of such knowledge by a much larger per cent of our officers than is now the case, it would appear that any practicable measures proposed, calculated to promote foreign language study and to supply this deficiency, would merit serious consideration.

The Staff College course aims to prepare and train students for staff duty with the larger units of troops. For the proper equipment of the modern staff officer a good knowledge of a foreign language may therefore be considered an essential.

French and Spanish are taught at the Military Academy at West Point, and the study of these languages is there compulsory. An increased amount of time has in recent years been allotted to this study and the course has been generally improved. It may therefore be assumed that, when a cadet is commissioned a second lieutenant, he possesses a "fair," even "good" elementary knowledge of the languages studied.

The regulations governing the examination of candidates for commissions in the army from the ranks and from civil life require an elementary knowledge of French, German or Spanish. They also prescribe, as an optional subject, "advanced" French, German or Spanish.

Every second lieutenant in the army consequently possesses an elementary knowledge of a foreign language.

No further demand or requirement is, by regulations, subsequently made of the newly appointed second lieutenant to maintain or to improve his knowledge of foreign languages until many years later, when, having earned the distinction, he is admitted to the Army Staff College where the study of foreign languages is again prescribed by regulations.

The general experience that non-use of a particular faculty, lack of practice or application of a special accomplishment, result in deterioration of that faculty and in a partial or complete loss of the special accomplishment, finds perhaps no better illustration than in the case of foreign languages.

Without some requirement or inducement to continue the study of foreign languages after entering the service, the average officer will "drop" this subject. There seems at present to be no requirement which would operate to correct the existing deficiency in foreign language knowledge by officers of the army. An elementary course extending over only nine and one half months, prescribed for a part of the Staff Class at these Schools, does not do it or even seriously approach to it, for the reasons previously stated.

With some requirement or inducement to continue such study the course in foreign languages during the Staff College year would soon be raised to a higher plane and the better results then made possible of attainment would, in a short time, become evident throughout the service.

What requirement could be imposed—what inducement offered?

The requirement: Making the possession of an

elementary knowledge of a foreign language a requirement for promotion of second and of first lieutenants, a reasonable period of time, perhaps as much as two years, being allowed for preparation before making the requirement effective.

The inducement: The creation of the status of "Officer Interpreter." Qualifications therefor to include a thorough advanced knowledge of a foreign language; only captains, first and second lieutenants to be eligible; upon the successful passing of the required examination (oral and written) a certificate to be issued, good for three years; certificates to be continued in force, for like periods, upon successfully passing reëxamination; holders of certificates to receive a uniform stated monetary compensation, not affected by rank or length of service, payable monthly.

CHARLES MILLER,
Major, 7th Infantry,
Senior Instructor.

THE ARMY SIGNAL SCHOOL

June 19, 1915.

I submit the following report for the school year 1914-15:

The following officers were regularly assigned to duty with the Signal School by proper authority:

Major L. D. Wildman, Signal Corps, Director from December 8, 1914, relieving Captain Parker Hitt, Signal Corps, who had been acting as Director since August 15, 1914.

Captain Parker Hitt, Signal Corps, upon his relief as Acting Director, was assigned to duty as Instructor. He was relieved from duty as Instructor March 19, 1915, per paragraph 31, Special Orders No. 19, War Department, 1915.

Captain E. G. Abbott, Signal Corps, Instructor, reported for duty February 2, 1915, per paragraph 14, Special Orders No. 5, War Department, 1915.

First Lieutenant D. D. Gregory, 5th Cavalry, Instructor, reported for duty per paragraph 20, Special Orders No. 180, War Department, 1914.

First Lieutenant F. E. Overholser, Instructor from previous year.

Captain J. B. Douglas, Signal Corps, reported for duty as Officer in Charge, Enlisted Men's School, per paragraph 7, Special Orders No. 242, War Department, 1914.

Captain George E. Kumpe, Signal Corps, was relieved from duty as Commanding Officer, Field Company A, Signal Corps, per paragraph 18, Special Orders No. 25, War Department, 1915.

Captain Paul M. Goodrich, Signal Corps, was assigned to duty as Commanding Officer, Field Company A, Signal Corps, per paragraph 1, Special Orders No. 16, War Department, 1915.

First Lieutenant T. L. Sherburne, Signal Corps, on duty with Field Company A, Signal Corps, from previous year.

STUDENT OFFICERS

The following student officers in their alphabeti-

cal order were graduated from the Army Signal School on June 19, 1915:

First Lieutenant O. S. Albright, 22d Infantry,
First Lieutenant C. L. Eastman, Signal Corps,
First Lieutenant Edwin Gunner, Infantry,
First Lieutenant A. G. Gutensohn, 27th Infantry,
First Lieutenant C. S. Hamilton, 11th Infantry,
First Lieutenant S. L. James, 28th Infantry,
First Lieutenant J. C. Moore, 7th Infantry,
First Lieutenant Frank Moorman, 18th Infantry.

Although the Army Signal School abandoned the marking system some years ago on account of the fact that the laboratory work of each student officer is largely independent, it has been the custom for the Director to announce the name of the student officer whose general average has been the highest in those studies which could be graded. In accordance with this custom, the Director announces that First Lieutenant Frank Moorman, 18th Infantry, is considered to have made the highest standing in academic work for the past year. Each officer of the class has been officially recommended as being especially fitted for detail in the Signal Corps. All the work has been well and conscientiously done, and it is believed that no special commendation should be made in the case of any officer except Lieutenant Moorman.

DEPARTMENT OF ENGINEERING

Instruction in Topography was this year conducted by the Army Field Engineer School. The Director recommended that these twenty half-days be omitted for the ensuing year. This view was concurred in by the Academic Board and has been approved by the Secretary of War. The twenty half-days heretofore given to Engineering will therefore be transferred to the Department of Signal Engineering for the coming year. This action takes away

from the Signal School all extraneous studies and permits the course to be a continuous one in purely Signal Corps work.

DEPARTMENT OF SIGNAL ENGINEERING

Following the recommendation of last year, this department has narrowed its scope to some extent in order to promote thoroughness in the subjects taught and to give more time to the subject of radiotelegraphy.

The course included instruction in:

(a) Electricity; (b) Units and Electrical Measurements; (c) Batteries, primary and secondary; (d) Telegraphy; (e) Radiotelegraphy; (f) Telephony; (g) Visual Signaling; (h) Military Lines of Information; (i) Gas and Oil Engines; (j) Photography; (k) Practical Operation and Repair of Signal Corps Instruments; (l) Line Construction; (m) Codes and Ciphers; (n) Signal Corps Manuals; (o) Logistics as Applied to Signal Troops.

The standard text-books used during the year were as follows:

Lessons in Practical Electricity, Swoope; Primary Batteries, I. C. S. Pamphlets; Storage Batteries, I. C. S. Pamphlets; Management of Military Telegraph Lines, Signal Corps Manual No. 2; Electrical Instruments and Telephones of the U. S. Signal Corps, Signal Corps Manual No. 3; Visual Signaling, Signal Corps Manual; Property and Disbursing Regulations of the U. S. Signal Corps, Signal Corps Manual No. 7; Principles of Gas Engines, I. C. S. Pamphlets; Carbureters, I. C. S. Pamphlets; Electric Ignition Devices, I. C. S. Pamphlets; Troubles and Remedies, I. C. S. Pamphlets; Alternating Currents, I. C. S. Pamphlets; Alternators, I. C. S. Pamphlets; Alternating Current Apparatus, I. C. S. Pamphlets; Radiotelegraphy, Andrews; Manual of Wireless Telegraphy for the Use of Naval Electricians.

Although these text-books have formed the basis of conferences and recitations, laboratory work has been increased and the text-books used more for reference and as a basis for instruction in the laboratory than for their theoretical value. It is believed

that this plan has proved by its results to be beneficial and in the coming year there will be even less text-book work and more laboratory practice than before.

The war game as applied to Signal Corps tactics has also proved to be of considerable benefit, and that method of instruction will be extended in the coming year.

Problems involving the use of the field and telegraph companies in construction, repair, and maintenance of lines of information over various map areas have also been required of the student officer to a great extent. These problems are presented in concrete form and the student officer is allowed a certain number of days to make his reports and requisitions for material exactly as though he were the Chief Signal Officer of an army in the field in charge of the problem presented. In this way the student officer becomes familiar with the property, materials, and instruments used by the Signal Corps for field use. It is believed that this method of teaching the subject is better than any other method which has been tried. It is also believed that all student officers who graduated in this year's class are familiar with the general means by which the Signal Corps provides lines of information in the field.

Technical conferences have been omitted on account of the fact that nearly all the student officers were unfamiliar with detailed Signal Corps work. Information formerly gained from papers written by experienced officers for technical conferences may now better be presented to the student in other ways.

The practical work in electricity has been much increased over that of former years, both in the laboratory and in the field, and the results have been

eminently satisfactory, particularly in the matter of dexterity in the use of the buzzer on field lines, and the radiotelegraph sets.

On account of the larger number of days devoted to radiotelegraphy, it has been possible to give a much more thorough course in the measurements necessary for modern radio stations. Each student officer has made his own wavemeter, calibrated it, and his measurements have been made by the use of this instrument.

It is believed that every graduate of this year's class is capable of erecting, testing, and operating almost any class of radio station. Attention, however is invited to the fact that the radio facilities at the school are inadequate, and it is earnestly recommended that more modern apparatus be furnished, and that at least one set of the following types be installed at the Signal School:

- One K. W. quenched spark Telefunken set, complete,
- One 1 K. W. Marconi rotating gap set, complete,
- One Poulsen arc set, or its equivalent, complete,

and that all of the different types of receiving apparatus, responders, and detectors be furnished. With such additional apparatus each officer could become so thoroughly familiar with the subject of radiotelegraphy that any pieces which might be found in a partially destroyed station could be utilized to build a station which could be utilized to transmit messages.

FIELD WORK

The student officers of this year's class have had practical experience with nearly all the forms of signaling which would ordinarily be utilized by the mobile army in time of war, and have had much more experience with the field company in actual

work than the student officers of any former class. This knowledge of field company work was tested and crystalized by the fact that for ten days they were injected as instructors into the Joint Camp of Instruction of Field Company A, Signal Corps, and the signal officers and noncommissioned officers of the militia of the various states. Their practical experience as instructors was probably as valuable to them as to the militia officers whom they instructed, and their practical work at that time was particularly satisfactory. It is recommended that if these camps can be established in future years, the same policy be adopted as a part of the Signal School course.

PHOTOGRAPHY

The instruction in photography, as heretofore, has been entirely practical. Lectures on optics were omitted. Student officers after preliminary instruction in the use of shutters and diaphragms were given cameras of different makes, with plates and films, which they were required to expose and develop, and from which prints were made on various makes of paper requiring different treatment. Enlargements and copies were also made. This work was done by the student officers at such times as they found convenient. They were marked proficient when the work accomplished was satisfactory. It is believed that each student officer this year is fully equipped to take any type of camera into the field and make successful photographs.

STAFF CLASS SUPPLY SECTION

In accordance with the decision from the War Department, a Supply Section of the Staff Class has been formed and twenty-five half-days assigned to the Director of the Signal School for the purpose of instructing the officers of this section on the general

subject of traction in connection with the supply of an army in the field. This course will be carried on jointly with the student officers of the Army Signal School and will embrace steam engine and locomotive practice, train dispatching, internal explosion engines, the automobile, storage batteries, and motor-cycles. As this will be the first year with this section, less time has been allotted than will probably be necessary for any great amount of instruction along these lines. It is, however, intended to make all of this work as practical as possible so that the student officers on graduation may have a practical rather than a theoretical general knowledge of these subjects.

INSTRUCTORS

With the first year of the Signal School, the academic plan of teaching was adopted in which the class as a whole studied from text-books and recited to the instructors. The laboratory work was simple and the Director had no duties outside of the Signal School. From these first years to the present time there has been a gradual change in the method of instruction. Instead of now making all men in the class conform to the pace of the slowest and to recite a given number of pages, each man pursues a course along the lines of least resistance and with the greatest possible speed consistent with thoroughness. This fact alone justifies the absolutely necessary increase in the number of instructors over those found necessary in the early years.

Two years ago there was added to the duties of the Director of the Signal School the command of the Signal Corps battalion, the responsibility of the Enlisted Men's School, and an increase in the amount of instruction given to the Line Class, Staff Class, the Special Class for Field Officers, and the Army

Field Service School for Medical Officers. On account of the increase in all other departments, it has also been found necessary for the Director to assume other duties in connection with courts-martial and boards. The Director is therefore eliminated as a part of the teaching force of the Army Signal School.

There must be at least one officer of thorough technical qualifications in charge of the laboratory, machine shop, and the experimental work. There must also be one instructor in charge of the theoretical work of the Army Signal School. Both of these officers must spend much time in making up problems and examination papers, and in marking the results of the solutions presented by the student officers. There must therefore be a third officer to act as assistant both in the laboratory and in the classroom. This assistant should be a man of as high a grade of technical knowledge as either of the chief instructors. There must also be a competent instructor in the Enlisted Men's School, in addition to the commanding officer of the company, for, as with the Army Signal School, each man of the school company must be pushed along individual lines in order to make him available for his Signal Corps duties in the shortest possible time. The duties of the two officers with the field company are such that their time is entirely taken up in work with the company. They cannot be considered as instructors in either the Enlisted Men's School or the Army Signal School.

It is therefore earnestly recommended that the force of instructors in the Army Signal School be considered to consist of the Director and three competent instructors, with an additional instructor attached to Company B. The reason for attaching this instructor to the company instead of making him a company officer is obvious. As an instructor, he would be directly under the jurisdiction of the Army

Signal School without going through channels and the company commander. If he were assigned to the company, there would be certain duties which he would be obliged by regulations to perform which would interfere with his work as an instructor.

Attention is invited to the fact that an instructor cannot be efficient until he has coördinated himself with the course, which is in a constant process of change. It is believed to be axiomatic that no instructor in the Army Signal School can be efficient without an experience of at least two months, and that his efficiency increases thereafter directly in proportion to his length of detail.

During the past year the Director was kept in Panama until December 8th (three months after the course commenced), and was again detailed away from the Schools for one month; Captain Parker Hitt was relieved from duty on March 19th, when the necessity for instructors was at its height; Captain Abbott reported for duty February 2d and had just become oriented when he was ordered on foreign service; Captain Douglas, who has been in charge of the Enlisted Men's School has also been ordered on foreign service; and Lieut. Overholser will be obliged to leave the schools on the expiration of his detail about December next.

It is believed that no further statement is necessary to prove that there should be some change in the system of detailing instructors to the Schools, and that no instructor should be assigned who cannot reasonably be expected to remain with the school for at least three years provided his duties are satisfactorily performed. In order to accomplish this end, it may be necessary to introduce a special bill to this effect in Congress with a corresponding change in the existing law.

SCHOOL FACILITIES

The present facilities for the work of the Army Signal School are inadequate, while those for the instruction company of enlisted men are in even worse condition. Recitation rooms, laboratories, machine shops, radio stations, storage batteries, drafting rooms, offices, and filing rooms are scattered all over the School buildings, the barracks, and the college section. A separate letter has been forwarded on the subject of providing an adequate building for Signal Corps purposes. This calls for a wing at the west end of Sheridan Hall balancing the library building, three stories in height, costing approximately \$75,000, and containing sufficient space for all the necessities for the Army Signal School and for a part of the necessities for the Enlisted Men's School. An additional reason for increased space is that the Supply Section of the Staff Class will be under the Director of the Army Signal School in the matter of instruction in the methods of traction. For this purpose there should be added to the facilities of the Army Signal School a number of different makes of steam and gasoline engines, sectional models of valves, carbureters, transmission devices, governors, and other accessories.

APPROPRIATIONS

During the past year the appropriation for all purposes for both the Army Signal School and the School for Enlisted Men has been \$2500. This amount will be entirely inadequate for next year for the reason that many of the instruments used by students who are unfamiliar with technical apparatus cannot be expected to remain undamaged, and during the past year the money has not been sufficient to keep up the necessary supplies. It is therefore considered

that at least \$5,000 will be necessary for the ordinary expenses of the Army Signal School, and the Enlisted Men's School, and that, in addition, there must be furnished from some appropriation the apparatus which will be necessary for the Supply Section of the Staff Class. During the past year the Enlisted Men's School has moved into the quarters formerly occupied by Field Company A, Signal Corps, where its facilities have been greatly increased in the matter of floor space. With this additional floor space comes the necessity for additional apparatus, and part of this \$5,000 will be devoted to making an adequate enlisted men's laboratory. It is believed that the Army Signal School laboratory and the enlisted men's laboratory cannot be made common to both classes on account of the conflict in hours. There should also be expended a certain amount of money in fitting up the instruction room for Field Company A, Signal Corps. During the winter much of the instruction must be given indoors and there is at present no apparatus in the new quarters of that company.

SIGNAL SCHOOL FOR ENLISTED MEN

Under the Director of the Army Signal School, Captain Joseph B. Douglas, Signal Corps, has been in command of the Signal School for Enlisted Men. His Annual Report is complete and will be forwarded to the Chief Signal Officer of the Army in its entirety. The following digest, however, is of interest in connection with the Army Signal School:

Course of study with number of students in each course:

	October	November	December	January	February	March	April	May	June
Electricity	*	33	44	62	40	48	43	15	44
Telegraphy.....	*	17	23	17	38	19	16	7	12
Radiotelegraphy.....	*	11	12	19	16	16	16	6	18
Telephones Switchboards	*	5	6	15	0	12	15	6	18
Line construction	*	0	0	9	12	9	9	5	8
Storage batteries.....	*	0	0	9	9	5	17	6	0
Visual signaling.....	*	52	52	53	37	18	15	8	20
Army Signal Book.....	*	66	83	53	0	0	41	8	0
Signal Corps Manuals....	*	63	84	53	0	0	0	0	0
Forms and reports.....	*	0	0	19	0	0	0	0	0
Gas and Oil Engines. . . .	*	0	0	0	0	0	0	0	0
Cable splicing.....	*	0	0	0	0	0	0	0	0
Mathematics.....	*	0	0	0	0	0	0	0	0

* No instruction during October.

As a result of this course, the men shown in the following list have qualified and have been sent on detached service:

Telegraph operators	26
Radio operators.....	19
Linemen.....	16
Telephone men.....	15
Engineers.....	6
Cable splicers.....	2
Clerks	4
Storekeepers	1
First Sergeants.....	3
Total.....	92

In addition to the above list, seventeen men were sent to the Aviation Section, among whom were a number of skilled men not enumerated; seventeen men were also furnished to field companies for mounted service.

The question of personal responsibility has been brought out very strongly in this school and the work so far as possible has been made independent. There has been a general spirit of cheerful coöperation in the work and the men have to a large extent been enthusiastic in qualifying themselves for particular situations. There was but one trial by court-martial during the entire period of the school year. This in itself proves the quality of the present recruits for the Signal Corps, and the method of conducting the discipline of this company.

After careful trial and elimination, the following subjects have been regularly taught:

- Electricity.
- Telegraphy.
- Radiotelegraphy.
- Telephones and switchboards.
- Line construction.
- Storage batteries.
- Visual Signaling.
- Army Signal Book.
- Signal Corps Manuals.
- Forms and reports.
- Gas and Oil Engines.
- Cable splicing.

In electricity, the instruction has closely followed that of the Army Signal School in which text-books are used to a certain extent, but in which laboratory work has been the principal method by which instruction was carried on.

In telegraphy, there has been much practical work added to the course pursued by the student officers of the Army Signal School on account of the necessity for skilled operators acquiring a full knowledge of the paper work of a telegraph office.

In the course in radiotelegraphy the best Morse operators have been selected and further trained for radio work.

The following noncommissioned officers in their capacity as instructors during the year are entitled to special mention:

First Class Sergeant Harry W. Mustin,
First Class Sergeant Evert L. Moore,
First Class Sergeant Joseph P. Conway,
First Class Sergeant James E. Faris,
First Class Sergeant Albert Jeffries,
First Class Sergeant Chauncey N. Rand,
Sergeant Samuel F. Lambert,
Sergeant Henry Lancaster.

The following recommendations are made for the coming year:

First: That at least forty men be kept available for instruction as students at all times.

Second: That at least one commissioned instructor and six noncommissioned instructors be considered permanent for a period of at least three years.

The work of Captain Joseph B. Douglas, Signal Corps, in charge of the school, has been exceptional in that he has been fighting under odds in the matter of space, money, and constant changes in personnel, in spite of which the results speak for themselves in the number of men made available for general Signal Corps work. It is regretted that the necessities of foreign service have made it necessary to relieve him from these schools so soon after systematizing the methods of instruction.

FIELD COMPANY A, SIGNAL CORPS

As a part of the Signal Corps battalion attached to the Army Service Schools, Field Company A, Signal Corps, has been utilized in field work with the Army Signal School and with other classes.

By orders of the Chief Signal Officer of the Army, it has been kept at full strength and is prepared for immediate war service. During the year there has been a gain of 59 men and a loss of 65,

due to discharge, transfers, retirement, death, and desertion. It will be seen that with a total enlisted strength of 96, a loss in one year of 65 men has changed almost seventy per cent of the enlisted personnel of the company.

Captain George E. Kumpe was relieved before the end of the School year, and Captain Paul M. Goodrich detailed as commanding officer.

The work of Company A in connection with the Schools is peculiar, and as there are many joint problems worked out by the company and the student officers, it has required more than ordinary work for Captain Goodrich to take this company in the middle of the School year and keep it efficient. During the joint militia maneuvers the company officers, chiefs of section, and other noncommissioned officers, were detailed for instruction purposes with the National Guard, and proved exceptionally efficient.

During the coming year the schedule of work with the Army Signal School will utilize the field company to a greater extent than before. The radio apparatus of this company should, therefore, be of the latest type, and there should be more pack sets than are allowed to the ordinary field company. It is recommended that at least two more pack sets be considered as a part of Field Company A's equipment. It is considered better to have these a part of the School equipment, on account of the care and repair of the sets.

SUMMARY

In order to emphasize certain recommendations which have been made in the body of this report in a way that will produce the most direct action, it is suggested that the Commandant approve the following summary:

First: That all instructors detailed to the Signal

School be detailed with a reasonable expectation that they may remain on duty as such for at least three years.

- Second: That the force of instructors be considered to consist of the Director and four competent technical officers, one for the laboratory, one for the theoretical work, one for a general assistant, and one for the Enlisted Men's School.
- Third: That a new building be requested for the occupation of the Army Signal School, costing approximately \$75,000, and situated at the west end of Sheridan Hall.
- Fourth: That the appropriation at the disposal of the Director for the ensuing year be \$5,000 from Signal Corps funds.
- Fifth: That two extra pack sets be allowed as a part of the equipment of the field company stationed at the Army Service Schools.

L. D. WILDMAN,
Major, Signal Corps,
Director, Army Signal School.

FIELD SERVICE AND CORRESPONDENCE SCHOOL FOR MEDICAL OFFICERS

The Director of this School has given instruction to five different classes during the academic year, 1914-15.

ARMY SCHOOL OF THE LINE

Sanitary tactics and field sanitation and hygiene were the subjects covered in the instruction to this class.

Eleven lectures and conferences were given, seven of which were on sanitary tactics, and the remainder covered the recent advances in camp sanitation, water and food supply for the field, and a general survey of infectious diseases; in so far as they were of serious interest to the line officer.

In addition to these, one problem and one terrain exercise relating to sanitary tactics were given the class.

The interest and knowledge of the subject displayed by the class has been very gratifying and it is considered that this class has a thorough working knowledge of the duties of the sanitary department in the field.

THE ARMY STAFF COLLEGE

The instruction of this class comprised a series of 14 lectures, 2 conferences and 2 problems.

The lectures were in two series. The first covered the subject of the hygiene of the soldier in garrison, and in the field. The second treated of the sanitary service during the 2d Bull Run, Fredericksburg, and Gettysburg campaigns of the Civil War.

The conferences and problems were a part of the course in Staff Duty, and covered the service of the sanitary department from the division back to and including the base section of the line of communications.

The class was particularly interested in that part of the work which treated of the sanitary service in the campaigns of recent wars and in their criticism of the course, thought that this work should be extended. This agreed with the opinion of the Director, and more time should be given to the department for further development along these lines.

SPECIAL CLASS FOR FIELD OFFICERS

The schedule carried out by the department for this class consisted of 4 lectures, 2 conferences, and 1 problem on sanitary tactics.

CORRESPONDENCE SCHOOL FOR MEDICAL OFFICERS

This was the first year in the second course of this school. Each course as outlined, covers a period of four years and the student officer is instructed carefully in sanitary tactics, by means of problems issued to them on January 1st, of each year.

Thirty-seven Regular officers and 2 Reserve Corps, were detailed for the course and 37 completed it.

Six problems were sent out, covering map reading, visibility, protection, length, and composition of columns; and the sanitary service with the detached regiment in attack and defense.

The solutions presented were on the whole excellent; when compared with the work of the 1st class in this school, a marked improvement is shown and it is evident that the subject of sanitary service in campaign is receiving decided attention from the officers of the Medical Corps.

It was found that the solutions presented by the two Reserve Corps officers were far below the average desired in this school, and showed an almost complete lack of knowledge of the subject. This course is too far advanced for such officers and it is recommended that in the future, the student officers of this School be confined to field officers of the regular Medical Corps.

FIELD SERVICE SCHOOL FOR MEDICAL OFFICERS

The class this year consisted of 9 Militia officers; one from each of the following states: Maine, Connecticut, New York, North Carolina, Georgia, Indiana, Oklahoma, Kansas, and Wyoming. Six regular officers were ordered to the school but the order was later revoked on account of lack of funds.

The course consisted of:

- 22 conferences and lectures on the Sanitary Service in Campaign,
- 14 conferences on Military Art,
- 3 conferences on the Laws of War,
- 13 half-days on sketches and map reading,
- 4 map maneuvers,
- 7 field problems,
- 8 map problems,
- 7 tactical rides,
- 1 staff ride.

This work as outlined, was carried out as if regular class was in attendance, but it was very noticeable that most of the militia officers were not able to keep abreast of the instruction given. Every effort was made by the Director, and the other instructors, to make the work as clear as possible and assist the student at every point.

During my service at these Schools it has been more and more strongly impressed upon me, that we are in error in sending Militia officers to this School:

simply on the recommendation of various inspector instructors.

The course given the classes here is and should be the final work in the training of medical officers in the work of the sanitary service in campaign. Most Militia officers coming to these Schools, though earnest and much interested in the work, have not sufficient primary instruction to permit them to grasp the salient points of the course.

Therefore to make this school more valuable, it is recommended that no Militia officers be ordered to this School until he has completed year "D" of the course of instruction inaugurated by the Bureau of Militia Affairs, or its equivalent.

It is also recommended that a much larger class of regular officers, than is now permitted, be ordered to the school each year. The importance of the dissemination of this instruction throughout the Army is so great, that full advantage, up to the capacity of the institution, should be taken of the facilities here presented.

This being the last year of my detail as Director of this school, I wish to take advantage of this opportunity to express my appreciation, for cheerful and efficient assistance rendered my department by the other instructors, who are, or have been on duty at these Schools during the last three years.

W. N. BISPHAM,
Major, Medical Corps.

REPORT ON EQUITATION

June 18, 1915

From: Instructor in Equitation.
To: The Secretary, Army Service Schools.
Subject: Report on Equitation.

1. The course in Equitation for 1914-15 began on November 2, 1914. All officers of the Line, Engineer and Signal classes were required to take the course, except graduates of the Mounted Service School. In addition, the course was optional to members of the Faculty and the Staff Class, a considerable number of whom availed themselves of the opportunity. The classes were divided into three platoons, each platoon riding for fifty minutes on Mondays, Tuesdays, Thursdays and Fridays, during the five months of instruction from November to April.

2. The course is modeled upon that of the Mounted Service School at Fort Riley, modified, necessarily, to suit the conditions here. The principal points covered are: (a) saddling; (b) bridling; (c) biting; (d) mounting and dismounting; (e) seat; (f) hands; (g) use of aids; (h) instruction in using the double bridle; (i) rising to the trot; (j) jumping, both with and without stirrups; (k) explanation and illustration of progressive system of training and developing young mounts, including the use of the cavesson and longe, saddling and mounting an unbroken horse, suppling exercises for the haunches and forehand, bending lessons, two track work, backing, and the progressive method of obtaining and perfecting the gallop leads.

3. It is the aim of the course, in addition to giving the officers the physical exercise called for in

General Orders No. 148, War Department, 1910, to instruct them in the training of an officer's mount, to instill a general interest and pleasure in riding and horsemanship, and to try, in the limited time devoted to the course, to give each officer a good seat, good hands, and to teach him to jump with ease and grace the ordinary obstacles met with in the field or on the Officer's Russian Ride Course.

4. Although a number of the Infantry members of the class had done but very little riding before coming here, and practically no work on the flat saddle, their progress was rapid and pleasing, and when the course ended during the first week in April all the members of the class were able, and keen, to take any of the jumps found on the Russian Ride Course at this post. At the end of the second month's instruction, and each month thereafter during the course, a Musical Ride was held in the College Riding Hall, showing each platoon in its regular work and the steady progress they were all making. All the officers concerned showed a great deal of interest in this equitation work, and, aside from the benefit of learning to ride properly, thereby increasing their efficiency as an officer, the physical exercise they all derived from their mounted work fitted them for the mental strain of the other school work; and for these reasons it is recommended that all the members of the Staff Class take the course.

5. The School is well equipped with enough trained horses and good jumpers to suitably mount the different platoons, and with twenty-five flat saddles of the best French and American make, and the College Riding Hall is up to date in every particular.

H. E. MANN,
1st Lieutenant, 12th Cavalry,
Instructor.